

REMARKS

Applicants thank the Examiner for the thorough consideration given the present application. Claims 1-6 are currently being prosecuted. The Examiner is respectfully requested to reconsider his rejections in view of the amendments and remarks as set forth below.

Rejection Under 35 U.S.C. § 103

Claims 1 and 3-5 stand rejected under 35 U.S.C. § 103 as obvious over Fan (U.S. Patent 6,807,342) in view of Tehrani (U.S. Patent 5,430,574). This rejection is respectfully traversed.

By way of the present Amendment, Applicants have amended claim 1 to include three additional limitations. The second additional limitation includes the features previously found in claim 9 which has been canceled. Accordingly, since this rejection was not applied against claim 9, this rejection is overcome.

Claim 9 stands rejected under 35 U.S.C. § 103 as being obvious over Fan in view of Tehrani and further in view of the Pedrotti et al. article. This rejection is respectfully traversed.

Claim 9 has been canceled rendering this rejection moot. However, since the limitations of claim 9 have been added to claim 1, this rejection will be considered in regard to claim 1.

The Examiner relies on Fan to show a tunable filter having a first optical fiber 24, a second optical fiber 22 and a MEMS-based one piece reflector. The Examiner admits that Fan lacks collimators and relies on Tehrani to show such collimators.

The Examiner cited the Pedrotti et al. article to teach the law of reversibility where any ray of light, if reversed in direction, will retrace the same path backward.

Applicants submit that claim 1 is not obvious over this three-way combination of references. Applicants have added additional limitations to claim 1 which overcome this rejection. It is therefore clear that the curved lens 31 has no contact with the base 300 to increase light transmission rate (see Fig. 1). Also, the first collimator 10 and the second collimator 20 have an inclined plane therein, respectively, to effectively reduce back reflection (BR) (See Fig. 1). Additionally, "the first collimator carries an optical input signal to the tunable filter and the second collimator carries an optical output signal from the tunable filter" is recited in claim 1 to more clearly disclose the features of the invention.

Nevertheless, Fan teaches that multiple layer 19 is sandwiched between the silicon base 21 and disk 16 (see Col. 2, lines 23-24 and Fig. 2) and the optical fibers 22 and 24 have interference filters 18 and 19 fixed or layered on each end surface of the input and output fibers (see Col. 3, lines 4-6 and Fig. 4). Clearly, the cited reference fails to disclose the multiple layer or interference filters is hanged. Neither Fan nor Tehrani disclose a collimator with an inclined plane therein. For these reasons, Applicants submit that claim 1 is allowable over this three-way combination of references.

Claims 2-6 depend from claim 1 and as such are also considered to be allowable. In addition, each of these claims recite other features that make them additionally allowable. This includes the formation of the film by alternate layers of different materials, the filter being a heat-actuated type filter, the filter being an electrostatic-actuated type filter and an anti-reflection layer being coated on the end of the first collimator. Accordingly, Applicants submit that these claims are additionally allowable.

Claim 2 stands rejected under 35 U.S.C. § 103 as being obvious over Fan in view of Tehrani and further in view of Domash (U.S. Published Application 2003/0072009). Claim 6 stands rejected under 35 U.S.C. § 103 as being obvious over Fan in view of Tehrani and further in view of Huang (U.S. Patent 6,263,128). These rejections are respectfully traversed.

The Examiner cites Domash to show a tunable thin film Fabry-Perot filter which is heat actuated. The Examiner relies on Huang to show the use for an anti-reflective film. However, even if these references do show these features, these claims remain allowable based on their dependency from allowable claim 1.

CONCLUSION

In view of the above remarks, it is believed that the claims clearly distinguish over the patents relied on by the Examiner, either alone or in combination. In view of this, reconsideration of the rejections and allowance of all the claims are respectfully requested.

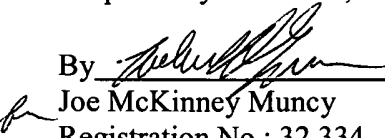
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert F. Gnuse, Reg. No. 27,295, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Pursuant to the provisions of 37 C.F.R. §§ 1.17 and 1.136(a), the Applicants hereby petition for an extension of two (2) months of October 8, 2006 in which to file a reply to the Office Action. The required fee of \$450.00 is enclosed herewith.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§ 1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

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